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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,721	10/04/2000	Glenn Reid	004860.P2472	7346

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Lisa Benado
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
12400 Wilshire Boulevard, 7th Floor
Los Angeles, CA 90025-1026

EXAMINER

HUYNH, SON P

ART UNIT	PAPER NUMBER
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2623

MAIL DATE	DELIVERY MODE
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12/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/679,721	Applicant(s) REID, GLENN	
	Examiner Son P. Huynh	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-15, 17-20, 22-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-15, 17-20, 22-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/15/2007 has been entered.

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 8-15, 17-20, 22-26, 28-33, as amended, have been considered but are moot in view of the new ground(s) of rejection.

Claims 7, 16, 21, 27 and 34 have been canceled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, 8, 11, 13, 15, 17-20, 22-24, 26, 28-30 and 33 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (US 2003/0149988) in view of Matsumoto et al. (US 5,517,632), and further in view of Yoda (US 6,593,946).

Regarding claims 1, 22 and 28, Ellis discloses a method, a corresponding processing system, and a corresponding computer readable medium for destructively editing a time based stream of information in a processing system (Figures 2d, 4, 5, 7-9), comprising:

capturing the time based stream of information from an information source (receiving stream of time based program from main facility or broadcaster or any source that program the program- see including, but are not limited to, figures 1, 2d, 7, 10, 22, 25a-25b, paragraphs 0060) having a transfer rate into a storage in response to repetitive interrupts having a recurring rate substantially similar to the transfer rate for the period of time (any transfer rate of program received by memory/storage at remote media server or user television equipment in response to interrupts according to broadcast schedule or user request is inherently substantially similar to the transfer rate before the interruption for period of transmitting real time program or super program – see include, but are

not limited to, figures 1, 2d, 7, 10, 22, 25a-25b, paragraphs 0076, 0083, 0089, 0090, 0094-0096, 0102, 0133, 0148, 0163-0163, 166, 0174-0180);

outputting the time based stream of information to a display window for the period of time based on an output rate substantially similar to the transfer rate (interpreted as outputting the time based stream of information to television display screen for playing back – see include, but are not limited to, figures 7, 9, 22-23, 25a-25b, paragraphs 0162-0169. The output rate from the storage device to television display is inherently **substantially** to the transfer rate input into the storage device);

playing the time based stream of information from the storage based on the transfer rate subsequent to the period of time (after program is cached/recorded in the storage, playing it back based on the transfer rate for display on the display screen -see include, but are not limited to, figures 5-7, 9, 22-23, 25a-25b, paragraphs 0162-0169, 0095-0096, 0097);

Ellis further discloses the playing back the program from the storage device/memory directly to the television (see include, but are not limited to, figures 2d, 7, 9, 22-23, 25a-25b, paragraphs 0104, 0157, 0165). Thus, the time based stream of information is outputted to the display window substantially simultaneously with the play of time the based stream of information from the storage.

partitioning a first portion and a second portion of the time based stream of information, the first portion and the second portion being consecutive in time based on the playing (partition program/super program in different portions,

segments or episodes being consecutive in time based on the playing – see include, but are not limited to – figures 22, 25a-25b, 29-31, paragraphs 0082-0083, 0094-0096, 0110, 0165, 0169, 0180), the first portion being stored in a first part of the storage, the second portion being stored in a second part of the storage (different parts of a single program/super program may be recorded on different storage devices or different portions of storage device– see include, but are not limited to, paragraphs 0082-0083), the first portion being captured into the first part during a first time period of the period of time (any period for capturing the first portion/first segment/first episode during time period of distributing program or super program – see include, but are not limited to, figures 2d, 5, 7, 9, 22, 25a-25b, 29-31, paragraphs 0082-0083, 0094-0096, 0110, 0165), the second portion being captured into the second part during a second time period of the period of time (any period for capturing the second portion, second segment or second episode during time period of transmitting the program or super program - but are not limited to, figures 2d, 5, 7, 9, 22, 25a-25b, 29-31, paragraphs 0082-0083, 0094-0096, 0110, 0165), the first part and the second part being consecutive in the storage (interpreted as any storage device/storage portion in storage of remote media server or user television equipment that store first portion, first segment, or first episode of the program and any storage device, storage portion in storage of remote media server or user television equipment that store second portion, second segment or second episode of the program or super program and these storage devices/storage portions being consecutive in the storage of remote media server or in the

television equipment – see include, but are not limited to, figures 2d, 4-7, 25a-25b, 29-31, paragraphs 0082-0083, 0094-0096, 0110, 0165-0166);

selecting the first portion of the time based stream of information (selecting first segment, first portion, or first episode of program or super program for playing back – see include, but are not limited to, figures 6a-6b, 25a-25b, 29-31, paragraphs 0094-0096, 0110, 0165-0166, 0173-0183);

receiving a user deletion command (receiving user delete command to delete a segment, or episode, or program – paragraphs 0167-0169, 0200); and

Ellis further discloses user choose to delete data that is no longer desired from the storage or expired time or after watched or automatically delete portions of a program that is being real time cached (paragraphs 0167-0169, 0200). Thus, the first portion, or episode, or program is deleted from the storage in response to the user deletion command, without examining storage capacity state such that portion is no longer stored on the storage is thereby destructively edited.

However, Ellis does not explicitly disclose the first part being of different size than the second part, moving at least a portion of the stream information from the second part of the storage to the first part of the storage for deleting the first portion from the storage.

Matsumoto discloses partitioning storage/disk into different parts for storing different portions of data file, the first part and second part being consecutive in the storage and the first part being of different size than the second part (for example, disk 1 has different parts as blocks 1-10, for storing different portion of

data file, and block 4 has size of 512 bytes, block 5 consecutive has size of 1k byte, block 4 and block 5 being consecutive – see include, but are not limited to, figures 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis with the teaching as taught by Matsumoto in order to yield a predictable result such as to improve speed of access of small amounts of data in the disk (col. 2, lines 14-29). However, Ellis in view of Matsumoto does not explicitly disclose moving at least a portion of the stream information from the second part of the storage to the first part of the storage for deleting the first portion from the storage.

Yoda discloses moving at least a portion of the stream information from the second part of the storage to the first part of the storage for deleting a portion from the storage in response to user deletion command (interpreted when an erase-write command is received from the host computer 2, displaying information stored in the screen buffer 16 is updated by the newest display information supplied from the host computer, the current display formation is moved to the lowest area of the previous screen storage unit 131 and the display information stored in lower storage areas of the previous screen storage 131 are shifted upward to replace the display information in the upper storage areas of the previous screen storage 131, the display information stored in the uppermost area of the previous storage unit (oldest display information) is erased – see include, but is not limited to, figures 7, 8, 14, 27-28, col. 9, line 41-col. 10, line 27). Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Ellis in view of Matsumoto to use the teaching as taught by Yoda in order to yield a predictable result such as to improve efficiency in data management, or to provide a scheme for controlling a device which can provide a device with decent manipulability (col. 4, lines 28-32).

Regarding claims 2, 23, and 29, Ellis further discloses providing reference data corresponding to the stored time based stream of information (e.g., program guide information including time, program title, program identifier, episode information, or segment information, or directory information etc. corresponding to the recorded program of information - see include, but are not limited to, figures 4-7, 10, 18a-18f, 25a-25b, 29-31, paragraphs 0060, 0145) and wherein the selecting is by extracting the reference data from at least a portion of the reference (extracting the reference data from the program title, segment identifier, time, directory information for recording, playing back, or delete particular segment, portion, or episode - see include, but are not limited to, figures 5-9, 18a-18f, 25a-25b, 29-31, paragraphs 0145, 0150, 0166-0169, 0174-0177, 0200).

Regarding claims 3, 24 and 30, Ellis further discloses the reference forms at least one new reference with reference data to the remaining time based stream of information (e.g., adding recorded icon, display in different color, adding pointer, etc. when the program/episode is recorded (figures 4-5, 18a-18d, 19), or update directory to remove information of deleted portion or delete program or deleted

episode and keeping only reference information of the remaining portions, recorded programs – see include, but are not limited to, paragraphs 0168-0169).

Regarding claims 6, 15, 26 and 33, Ellis further discloses deleting the no longer desired program from the storage device (paragraphs 0167-0169, 0200). It would have been obvious to one of ordinary skill in the art that the portion (undesired/watched program or portion or episode) is deleted by permanently eliminating the information from storage directly without an intermediate step in order to improve convenience to user.

Regarding claim 8, the limitations of the method for managing storage in a processing system that correspond to the limitations of a method of destructively editing a time based stream of information in a processing system as claimed claim 1 are analyzed as discussed with respect to the rejection of claim 1. Ellis further discloses the portion (undesired program) is deleted if the portion is not represented by more than one reference data (in response to the deletion request, delete the portion from storage device that store the program selected for deletion if only one user has requested that the program be recorded- paragraph 0168).

Regarding claims 11, 13, the additional limitations correspond to the additional limitations claimed in claims 2-3, and are analyzed as discussed with respect to the rejection of claims 2-3.

Regarding claim 17, the limitations of the system that correspond to the limitations of the method as claimed in claim 1 are analyzed as discussed with respect to the rejection of claim 1, wherein

“a storage...” is read on the storage at remote media server or user television equipment (see include, but are not limited to, figures 2d, 7, 9 and discussion in the rejection of claim 1);

“a capture port for...” is interpreted as input of storage or interface to the program source such as receiving device or tuner – see include, but are not limited to, figures 2d, 7, 9 and discussion in the rejection of claim 1);

“a display device” (television device) for ... (figures 7, 9 and discussion in the rejection of claim 1); and
a processor (processing circuitry at user television equipment or control circuitry in set top box) for (see figures 2d, 7, 9 and discussion in the rejection of claim 1).

Regarding claim 18, Ellis further discloses the display device includes a deletion control (e.g., DEL key and/or deletion control in remote media server for control deleting of portion of program or a particular program or episode – see include, but are not limited to, paragraphs 0167-0169, 0200).

Regarding claim 19, Ellis further discloses the storage further includes at least one reference data corresponding to the time based stream of information and

the processor is further for deleting the reference data reference (e.g., program title, program identifier, or directory information and the processor in processing circuitry or control circuitry for deleting the reference data reference if the program or episode is deleted – see include, but are not limited to, figures 2d, 7, 9, paragraphs 0167-0169).

Regarding claim 20, the additional limitations correspond to the additional limitations as claimed in claim 3 and are analyzed as discussed with respect to the rejection of claim 3.

4. Claims 4, 14, 25, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (US 2003/0149988) in view of Matsumoto, and Yoda (US 6,593,946) as applied to claims 3, 24, 30 above, and further in view of Chao et al. (Chao), U.S. Patent No. 5,732,184.

As for claims 4, 14, 25, and 31, Ellis further discloses the extracted reference data is from a portion nested within the reference (extracted reference data of program or episode to be recorded or deleted is from a portion nested within program guide information or directory information (see include, but are not limited to, figures 5-6b, 18a-18f, 25a-25b, 29-31, paragraphs 0167-0169). Ellis does not explicitly disclose the reference splits into a first new reference corresponding to the information prior to the extracted data and a second new reference corresponding to the information after the extracted reference data.

However, Chao, in an analogous art, teaches editing video clips incorporating a slicing operation wherein a clip is divided into two separate clips (col. 5, line 64 – col. 6, line 53 and Figs. 4A and 4B). Editing a video clip to produce two separate clips inherently discloses a first new reference corresponding to information prior to the slicing point and a second new reference corresponding to information after the extracted reference data to allow for editing of the clips separately. The slicing operation taught by Chao provides the benefit of allowing a clip to be separated for other video clip data to be inserted between the sliced portions (see col. 6, lines 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis in view of Matsumoto and Yoda to incorporate the teaching of the reference splits into a first new reference corresponding to the information prior to the extracted reference data and a second new reference corresponding to the information after the extracted reference data, as taught by Chao, for the benefit of allowing a clip to be separated for other video clip data to be inserted between the sliced portions in a time based stream editing system.

5. Claims 5, 9-10,12 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Matsumoto and Yoda (US 6,593,946) as applied to claims 2, 22 and 29 above, and further in view of Gamon, U.S. Patent No. 6,345,318.

Regarding claims 5, 9 and 32, Ellis in view of Matsumoto and Yoda disclose method and computer readable medium as discussed in claims 2, 8, and 29. Ellis in view of Matsumoto and Yoda does not explicitly disclose depositing the extracted reference data in a trash depository prior to deletion, as claimed.

However, Garmon, in an analogous art, teaches a trash depository (e.g., Recycle Bin **415** of Fig. **4**) wherein objects selected for deletion are stored prior to permanently deleting the data from storage, wherein further, the deleting action may be cancelled (i.e., the object restored) if the user subsequently decides the object selected for deletion is needed or the user may permanently delete the object by emptying the recycle bin (col. 7, lines 13-38). The implementation of a trash depository function is notoriously well known in operating systems and application software that provides the typical and well-known benefit of enabling a user to restore data previously selected to be deleted (i.e., to reverse a deletion action).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the deleting step of Ellis in view of Matsumoto and Yoda to incorporate the teaching of depositing corresponding reference data in a trash depository prior to deleting the information, as taught by Garmon, for the typical and well-known benefit of enabling a user to restore data previously selected to be deleted.

As for claim 10, Garmon further discloses the deleting action may be cancelled (i.e., the object restored) if the user subsequently decides the object selected for

deletion is needed or the user may permanently delete the object by emptying the recycle bin (col. 7, lines 13-38).

As for claim 12, Ellis in view of Matsumoto and Yoda discloses a method as discussed in the rejection of claim 11. Ellis in view of Matsumoto and Yoda does not explicitly disclose wherein if a cancel command is received, the extracted reference data is replaced in the reference and the portion is not deleted, as claimed.

However, Garmon, in an analogous art, trash depository (e.g., Recycle Bin **415** of Fig. 4) wherein objects selected for deletion are stored prior to permanently deleting the data from storage, wherein further, the deleting action may be cancelled (e.g., the object restored along with corresponding reference data to the portion selected for deletion) if the user subsequently decides the object selected for deletion is needed (e.g., canceling the deletion command) or the user may permanently delete the object by emptying the recycle bin (col. 7, lines 13-38). The implementation of a trash depository function is notoriously well known in operating systems and application software that provides the typical and well-known benefit of enabling a user to restore data previously selected to be deleted (i.e., to reverse a deletion action).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the deleting step of Ellis in view of Matsumoto and Yoda to incorporate the teaching of if a cancel command is received, the extracted reference data is replaced in the reference and the

portion is not deleted, as taught by Garmon, for the benefit of enabling a user to restore data previously selected to be deleted (i.e., to reverse a deletion action).

In addition, it is noted that the limitation of moving at least a portion of stream of information from the second part of the storage to the first part of the storage for deleting the first portion from the storage... could be alternatively interpreted as the concept of first-in-first-out memory/buffer or the concept of circular memory/ buffer, which is well known in the art.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Walker (US 6,134,586) discloses stripping data across disk zones.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00- 6:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Son P. Huynh

Date: November 30, 2007

A handwritten signature in black ink, appearing to be 'SPH' followed by a long horizontal stroke.